

Listing of claims:

The following listing of claims replaces all previous claim listings in the application:

1. (Previously Presented). A data protection system comprising:

a fileserver configured to contain shares of data and to be connected with a repository, wherein two or more repositories are configured to store a replica of a file, wherein a storage location and a number of replicas in each repository can be configured to change over time;

the fileserver includes:

a filter driver operative to intercept input or output activity initiated by client file requests and further configured to capture a snapshot of a set of the shares of data at a particular point in time and to maintain a list of modified and/or created files since a last snapshot occurred;

a file system in communication with the filter driver and operative to store client files;

the filter driver is configured to capture the snapshot at a specified time interval based on a backup frequency defined in a protection policy stored in the fileserver, wherein the protection policy is configured to be uniquely defined for each share of data on the fileserver.

2. (Cancelled).

3. (Previously Presented). The system of claim 1, wherein the fileserver further comprises:

a location cache configured to determine based on the protection policy which repository will be used to protect each share of data; and

a location manager coupled to the location cache and operative to update the location cache when the fileserver protects a new share of data in a specific repository node.

4. (Previously Presented). The system of claim 3, further comprising

a local repository in communication with the fileserver and

adapted for receiving files from the fileserver;

the local repository is further adapted to receive replicated files from the fileserver; and

the local repository includes a protection policy component operative to determine whether new versions of existing files should be compressed and whether older versions of existing files should be maintained.

5. (Previously Presented). The system of claim 4, further comprising a remote repository in communication with the local repository and adapted for receiving files from the local repository;

the remote repository is further adapted to receive replicated files from the local repository; and

the remote repository includes a protection policy component operative to determine whether new versions of existing files should be compressed and whether older versions of existing files should be maintained.

6. (Previously Presented). The system of claim 1, wherein the fileserver, based on the protection policy, is adapted to define repositories used for storage of files, frequency of data backup, how many replicas are maintained within each repository, and how modifications to share data are maintained.

7. (Previously Presented). A method for protecting data comprising:
storing a version of a file within a set of files on a primary disk storage system;
capturing a snapshot of the set of files at a particular point in time based on a backup frequency defined in a protection policy;
maintaining a list of modified and/or created files since last captured snapshot;
examining the protection policy associated with the set of files to determine where and how to protect files associated with the set of files; and
replicating the version of the file to two or more repositories specified by the protection policy, wherein the repositories includes at least one of a local repository and a remote

repository, wherein a storage location and a number of replicas of the version of the file can be configured to change over time;

wherein the protection policy is configured to be uniquely defined for each set of files.

8. (Previously Presented). The method of claim 7 wherein the file is configured to have at least one version.

9. (Previously Presented). The method of claim 8 wherein the method further comprises:
applying reverse delta compression to the version of the file when a successive version of the file is stored in the repository.

10. (Previously Presented). The method of claim 9 wherein the step of applying reverse delta compression comprises

creating another version of the file, wherein the another version of the file is a version of the file successive to the version of the file;

replicating the another version of the file into the local repository and the remote repository;

replacing the replicated version of the file in the local repository with a reverse delta compressed version representing a difference between the version of the file and the another version of the file and replicating;

transmitting the reverse delta compressed version to the remote repository; and

in the remote repository, replacing the version of the file with the reverse delta compressed version to store the another version and the reverse delta compressed version.

11. (Previously Presented). The method of claim 7 wherein examining a protection policy associated with the set of files to determine where and how to protect files associated with the set of files comprises:

determining the location of repositories and a number of replicas of the files to be stored in each repository.

12. (Previously Presented). The method of claim 7 wherein examining a protection policy associated with the set of files to determine where and how to protect files associated with the set of files comprises:

determining whether to purge a file from a repository after the file has been deleted from a set of files.

13. (Previously Presented). The method of claim 7 wherein examining a protection policy associated with the set of files to determine where and how to protect files associated with the set of files comprises:

determining whether to keep a version history of a file in the set of files.

14. (Previously Presented). The method of claim 7 wherein examining a protection policy associated with the set of files to determine where and how to protect files associated with the set of files comprises:

determining a specified backup frequency for a repository.

15. (Previously Presented). The method of claim 7 wherein examining a protection policy associated with the set of files to determine where and how to protect files associated with the set of files comprises:

determining a specified type of compression for a file in the set of files.

16. (Previously Presented). The method of claim 7 wherein examining a protection policy associated with the set of files to determine where and how to protect files associated with the set of files comprises:

determining a specified caching level of a repository.

17. (**Currently Amended**). A data protection system comprising:

a fileserver configured to contain shares of data and to be connected with a repository, wherein two or more repositories are configured to store a replica of a file, wherein a storage location and a number of replicas in each repository can be configured to change over time;

said fileserver includes:

filter driver means for intercepting input or output activity initiated by client file requests and for capturing a snapshot of a set of the shares of data at a particular point in time and for maintaining a list of modified and/or created files since a last snapshot occurred;

file system means in communication with the filter driver, the file system means for storing client files;

wherein said filter driver means is configured to capture the snapshot at a specified time interval based on a backup frequency defined in a protection policy stored in the fileserver, wherein the protection policy is configured to be uniquely defined for each share of ~~data~~data on the fileserver.

18. (Cancelled).

19. (Previously Submitted). The system of claim 1, wherein said fileserver is configured to

backup said modified files into repositories identified in said protection policy based on said backup frequency; and

store a latest version of a file in a repository where a prior version of said file is stored;

determine a difference between said latest version of said file and said prior version of said file;

apply reverse delta compression to said difference;

replace said prior version of said file with said reverse delta compressed difference between said latest version and said prior version of said file.

20. (Previously Submitted). The system of claim 1, wherein, based in the protection policy, the fileserver is configured to determine the location of repositories and a number of replicas of the files to be stored in each repository.

21. (Previously Submitted). The system of claim 1, wherein, based on the protection policy, the fileserver is further configured to determine whether to purge a file from a repository after the file has been deleted from a set of files.

22. (Previously Submitted). The system of claim 1, wherein, based on the protection policy, the fileserver is further configured to determine whether to keep a version history of a file in the set of files.

23. (Previously Submitted). The system of claim 1, wherein, based on the protection policy, the fileserver is further configured to determine a specified backup frequency for a repository.

24. (Previously Submitted). The system of claim 1, wherein, based on the protection policy, the fileserver is further configured to determine a specified type of compression for a file in the set of files.

25. (Previously Submitted). The system of claim 1, wherein, based on the protection policy, the fileserver is further configured to determine a specified caching level of a repository.

26. (Previously Submitted). The system of claim 17, wherein the fileserver further includes

backup means for backing up the modified files into repositories identified in the protection policy based on the backup frequency;

storage means for storing a latest version of a file in a repository where a prior version of the file is stored;

means for determining a difference between the latest version of the file and the prior version of the file;

means for applying reverse delta compression of the difference; and

means for replacing the prior version of the file with the reverse delta compressed difference between the latest version and the prior version of the file.